

Inorganic Chemistry
(Common For B.Sc. Biotech Industrial Microbiology Semester-VI)
Paper-I

Time Allowed : Three Hours

Maximum Marks : 35

Note :- Attempt five questions, selecting two questions each from Sections A and B. Section C is compulsory.

All questions carry equal marks :

Section - A

1. Pearson's HSAB concept is helpful in identifying hard and soft acid bases. Explain. 7
2. How does electro negativity explain the acid base behaviors? Explain. 7
3. What are Metallo porphyrins? Chalk out the role played by them as oxygen carriers. 7
4. What are essential and trace elements? Chalk out their vital roles in biological system. 7

Section - B

5. Discuss the nature of bonding in metal carbonyl complexes. 7
6. Give the preparations and applications of organolithium compounds. 7
7. How will you prepare polymers of phosphazenes? Give their important applications. 7
8. What are silicones? How are these prepared? Give their utilities. 7

Section - C

9. Do all the parts in short :
 - (i) What are symbiotic bacteria? 7
 - (ii) What are craft polymer? Give an example. 7
 - (iii) What are silicon elastomers? 7
 - (iv) Give two uses of metal carbonyls. 7
 - (v) Explain the term Symbiosis. 7
 - (vi) Classify hard and soft acids, Cesium, Platinum and Aluminium ions. 7
 - (vii) Give structure of methyl lithium. 7

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